



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

1651
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1-2-03
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MAY 21 2003

TECH CENTER 1600/2900

Applicant : Anastasios Melis et al)
Serial No. : 09/748,690)
Filing Date: 12/22/00)
Title: HYDROGEN PRODUCTION USING)
HYDROGENASE-CONTAINING)
OXYGENIC PHOTOSYNTHETIC)
ORGANISMS)

Group Art: 1651

Examiner: V. Afremova

Atty. Dkt. No. NREL 99-29

AMENDMENT UNDER 37 CFR §1.115

Assistant Commissioner For Patents
P.O. Box 1450
MS Non-Fee Amendment
Alexandria, VA 22313-1450

Sir:

In reply to the Office Action mailed April 22, 2003, which rejected the claims in the above-identified patent application, applicants respectfully request reconsideration based upon the amendments hereinafter set forth.

IN THE CLAIMS:

1. (Thrice Amended) A reversible physiological process for temporal separation of oxygen evolution to avoid deactivation of hydrogenase in the presence of oxygen and sustain photosynthetic hydrogen production in cells of an [algal] algae microorganism, comprising:
 - (a) growing a culture of cells of [algal] algae microorganism in a medium under illuminated conditions to accumulate an endogenous substrate;